Michigan Manufacturers Association

House Workforce and Talent Development

3/21/17

Mr. Chairman, thank you for the opportunity to testify today in support of creating greater flexibility in the Merit curriculum to make more room for more career tech education in the K-12 system.

Michigan Manufacturing

I'd like to start out by talking about manufacturing in Michigan:

- Manufacturing is the largest sector of the Michigan economy by Gross State Product, making up 21% of the private sector GSP.
- Manufacturing employs about 600,000 people in Michigan.
- Michigan is doing well – leading the nation in manufacturing job growth, having created 163,700 manufacturing jobs since June of 2009.
- Manufacturing offers higher wages. The average annual wage in manufacturing is $81,289 annually including pay and benefits, compared to all sectors at $63,830.
- Manufacturing is different than other sectors – it competes in the global economy.

A Primary Barrier to Economic Growth

When I talk with manufacturers about their biggest concerns the most common answer I get is, finding talent – the top concern no longer taxes or regulation...though they always remain on the list...it is most often talent.

They often tell me that they could invest more and grow, but they don't have and can't find the skilled workers need to run the equipment. So, the talent gap or talent shortage has now become a primary barrier to economic growth in Michigan.

Partnership SME Education Foundation - PRIME

To address the barrier to economic growth for manufacturers we have partnered with the Society of Manufacturing Engineers – no known as the SME Education Foundation and their program called PRIME, which has successfully created career tech programs in k-12 schools in 22 states. PRIME meets with manufactures in a local community and finds out what skill sets are needed in that area, then designs customized curricula for the local schools and then trains the teachers, and equally important delivers the appropriate industry relevant equipment to the schools, so students can train on the equipment use by the local employers.

I describe this not to promote the PRIME program, though if it has that effect I'm ok with that..., I say it to highlight the huge opportunities for students to gain the career based skills that are needed in their communities.

Let me be clear. Manufacturers are looking for the best and the brightest. Modern manufacturing is a high tech, high skill, high knowledge operation. The other low skill, low knowledge activities are left to robots run by skilled workers. A career tech program in PRIME is a rigorous program designed to meet industry standards and deliver industry credentials that encourage continued education and life-long learning. We want to create highly desirable job applicants – this includes both those seeking four-year engineer degrees and those building on stackable credentials. The dream candidates for manufacturers have both knowledge and applied skills.

Flexibility

For PRIME programs to be as effective as they should be, there needs to be more flexibility in the Merit Curriculum. The biggest barrier to expanded career tech programs is finding enough time in the day for classes to learn through applied techniques. The more flexibility, the more opportunities can be created for students to map an academic path, whether it is a four-year degree, or a high paying, high skill industrial credential. We should not think about a two-path rubric, but instead an infinite combination of paths created through flexibility in the curriculum. A lot of math and chemistry can be learned through metrology (precision measuring), or in machining and the manipulation of metals in welding and metallurgy. In terms of language, the coding language needed to run a Fanuc robot is a universal skill and a universal language that can be used anywhere in the world.

Let me say again. Manufacturers want the best and the brightest, but they must have the right skill sets. I graduated with a lot of really bright people in the philosophy program at the University of Michigan, but I am not sure they had the right skill sets for manufacturers.

Conclusion

Our partners from the SME Education Foundation often say to me, we really have one good opportunity to capture the aptitude for highly skilled people and that is in K-12 system. After high school, it becomes much more difficult and more expensive to capture the aptitude and develop the skills.

We need greater flexibility in the Merit curriculum to provide greater opportunities for Michigan's young adults, and to make Michigan more competitive in the global economy.

Thank you for the opportunity to share our views today.